

WHAT IS CLAIMED IS:

1. A gateway system for use in a communication network for communicating PCM data with a remote system connected to the communication network, the gateway system comprising:

a plurality of voice processing units, each voice processing unit having a unique IP address and preparing compressed data from the PCM data and further converting the compressed data into packets;

a HUB in communication with the plurality of voice processing units; and

a main processing unit in communication with the plurality of voice processing units and the HUB, the main processing unit having a main IP address for communicating with the remote system, wherein the main processing unit receives the unique IP addresses of the plurality of voice processing units and the packets and converts the packets into a protocol stack for communicating on the communication network and uses the main IP address in lieu of the unique IP addresses of the voice processing units in the protocol stack.

2. The gateway system of claim 1, wherein each one of the plurality of voice processing units uses G.723.1 standard protocol to compress the PCM data.

3. The gateway system of claim 1, wherein each one of the plurality of voice processing units uses G.729 standard protocol to compress the PCM data.

4. The gateway system of claim 1, wherein the packets are converted into the protocol stack using H.323 standard protocol.

5. The gateway system of claim 1, wherein the plurality of voice processing units are in communication with the HUB using Ethernet connections.

6. The gateway system of claim 1, the main processing unit comprises a central processing unit, a memory, a HUB interface device, a router interface device and a dual port memory connected to the central processing unit, wherein the dual port memory is in

communication with the plurality of voice processing units through the HUB and stores the unique IP addresses of the plurality of voice processing units.

7. The gateway system of claim 1, wherein the main processing unit comprises:
a LAN interface module executed at the main processing unit for receiving the packets and the unique IP addresses from the plurality of voice processing units;
a protocol stack reassemble module executed at the main processing unit for converting the packet into the protocol stack; and
a router interface module executed at the main processing unit for transmitting the protocol stack to the communication network with the main IP address of the main processing unit.

8. A gateway system for use in a communication network for communicating PCM data with a remote system connected to the communication network, the gateway system comprising:
a plurality of voice processing units, each voice processing unit having a unique IP address and preparing packets received from the remote system into compressed data and further preparing the compressed data into PCM data;
a HUB in communication with the plurality of voice processing units; and
a main processing unit in communication with the plurality of voice processing units and the HUB, the main processing unit having a main IP address for communicating with the remote system, wherein the main processing unit receives a protocol stack from the remote system, disassemble the protocol stack into the packets, and selects idling voice processing unit and sends the packets with the unique IP address corresponding to the idling voice processing unit.

9. The gateway system of claim 8, wherein each one of the plurality of voice processing units uses G.723.1 standard protocol to decompress the compressed data into the PCM data.

10. The gateway system of claim 8, wherein each one of the plurality of voice processing units uses G.729 standard protocol to decompress the compressed data into the PCM data.

11. The gateway system of claim 8, wherein the protocol stack is converted into the packets using H.323 standard protocol.

12. The gateway system of claim 8, wherein the plurality of voice processing units are in communication with the HUB using Ethernet connections.

13. The gateway system of claim 8, the main processing unit comprises a central processing unit, a memory, a HUB interface device, a router interface device and a dual port memory connected to the central processing unit, wherein the dual port memory is in communication with the plurality of voice processing units through the HUB and stores the unique IP addresses of the plurality of voice processing units.

14. The gateway system of claim 8, wherein the main processing unit comprises:
a router interface module executed at the main processing unit for receiving the protocol stack from the communication network with the main IP address of the main processing unit.

a protocol stack reassemble module executed at the main processing unit for converting the protocol stack into the packets; and

a LAN interface module executed at the main processing unit for selecting the idling voice processing unit and transmitting the packets and the corresponding unique IP address of the voice processing unit.

15. A method of communicating using a gateway system and a communication network for communicating PCM data with a remote system connected to the communication network, the gateway system having a plurality of voice processing units with each voice processing unit having a unique IP address; a HUB which is in communication with the plurality of voice processing units; and a main processing unit in communication with the plurality of

voice processing units and the HUB, the main processing unit having a main IP address for communicating with the remote system, the method comprising the steps of:

preparing compressed data from the PCM data;
converting the compressed data into packets;
transmitting the packets to the main processing unit through the HUB; and
the main processing unit receiving the unique IP addresses of the plurality of voice processing units and the packets and converting the packets into a protocol stack for communicating on the communication network and using the main IP address in lieu of the unique IP addresses of the voice processing units in the protocol stack.

16. The method of claim 15, wherein each one of the plurality of voice processing units uses G.723.1 standard protocol to compress the PCM data.

17. The method of claim 15, wherein each one of the plurality of voice processing units uses G.729 standard protocol to compress the PCM data.

18. The method of claim 15, wherein the packets are converted into the protocol stack using H.323 standard protocol.

19. The method of claim 15, wherein the plurality of voice processing units are in communication with the HUB using Ethernet connections.

20. The method of claim 1, the main processing unit comprises a central processing unit, a memory, a HUB interface device, a router interface device and a dual port memory connected to the central processing unit, wherein the dual port memory is in communication with the plurality of voice processing units through the HUB and stores the unique IP addresses of the plurality of voice processing units.

21. A method of communicating using a gateway system and a communication network for communicating PCM data with a remote system connected to the communication

network, the gateway system having a plurality of voice processing units with each voice processing unit having a unique IP address; a HUB which is in communication with the plurality of voice processing units; and a main processing unit in communication with the plurality of voice processing units and the HUB, the main processing unit having a main IP address for communicating with the remote system, the method comprising the steps of:

the main processing unit receiving the protocol stack with the main IP address from the remote system;

disassembling the protocol stack into packets;

selecting an idling voice processing unit and transmitting the packets with the unique IP address of the idling voice processing unit;

the idling voice processing unit converting the packets into the compressed data; and decompressing the compressed data into the PCM data.

22. The method of claim 21, wherein each one of the plurality of voice processing units uses G.723.1 standard protocol to decompress the compressed data into the PCM data.

23. The method of claim 21, wherein each one of the plurality of voice processing units uses G.729 standard protocol to decompress the compressed data into the PCM data.

24. The method of claim 21, wherein the protocol stack is converted into the packets using H.323 standard protocol.

25. The method of claim 21, wherein the plurality of voice processing units are in communication with the HUB using Ethernet connections.

26. The method of claim 21, the main processing unit comprises a central processing unit, a memory, a HUB interface device, a router interface device and a dual port memory connected to the central processing unit, wherein the dual port memory is in communication with the plurality of voice processing units through the HUB and stores the unique IP addresses of the plurality of voice processing units.